

Author index

- Abdella, M M *see* Swellum, M A
 Abellán, E *see* Morales, A
 Abellán, E *see* Morales, A E
 Abery, N & De Silva, S. Performance of murray cod, *Maccullochella peelii peelii* (Mitchell) in response to different feeding schedules, 472
 Abery, N W *see* Nguyen, H S
 Acerete, L *see* Barton, B A
 Adamec, V *see* Rehulka, J
 Affalo, E D *see* Sagi, A
 Afonso, J M *see* Astorga, N
 Agradi, E *see* Palmegiano, G B
 Aguado-Giménez, F & García-García, B. Growth, food intake and feed conversion rates in captive Atlantic bluefin tuna (*Thunnus thynnus* Linnaeus, 1758) under fattening conditions, 610
 Ahmad, K C *see* Usman
 Ahmed, E Yokota, M, Watanabe, S, Koike, Y, Segawa, S & Strüssmann, C A. Time to recover the upright posture in juvenile abalones (*Haliotis discus discus* Reeve, *H. gigantea* Gmelin and *H. madaka* Habe), 799
 Ahmed, I & Khan, M A. Dietary tryptophan requirement of fingerling Indian major carp, *Cirrhinus mrigala* (Hamilton), 687
 Ahvenharju, T & Ruohonen, K. Individual food intake measurement of freshwater crayfish (*Pacifastacus leniusculus* Dana) juveniles, 1304
 Ahvenharju, T, Savolainen, R, Tulonen, J & Ruohonen, K. Effects of size grading on growth, survival and cheliped injuries of signal crayfish (*Pacifastacus leniusculus* Dana) summerlings (age 0+), 857
 Akimoto, A *see* Kofuji, P Y M
 Alam, M S *see* Michael, F R
 Alavandi, S V *see* Vijayan, K K
 Alavi, S M H & Cosson, J. Sperm motility and fertilizing ability in the Persian sturgeon *Acipenser persicus*, 841
 Alder, J *see* Fromont, J
 Alexis, M N *see* Fountoulaki, E
 Ali, M Z, Hossain, M A & Mazid, M A. Effect of mixed feeding schedules with varying dietary protein levels on the growth of sutchi catfish, *Pangasius hypophthalmus* (Sauvage) with silver carp, *Hypophthalmichthys molitrix* (Valenciennes) in ponds, 627
 Alim, M A, Wahab, M A & Milstein, A. Effects of increasing the stocking density of large carps by 20% on 'casi' carp—small fish polyculture of Bangladesh, 317
 Allan, G L & Rowland, S J. Performance and sensory evaluation of silver perch (*Bidyanus bidyanus* Mitchell) fed soybean or meat meal-based diets in earthen ponds, 1322
 Allan, G L *see* Booth, M A
 Allan, G L *see* Rowland, S J
 Amirkolaie, A K, El-Shafai, S A, Eding, E H, Schrama, J W & Verreth, J A J. Comparison of faecal collection method with high- and low-quality diets regarding digestibility and faeces characteristics measurements in Nile tilapia, 578
 Amirkolaie, A K, Leenhouders, J I, Verreth, J A J & Schrama, J W. Type of dietary fibre (soluble versus insoluble) influences digestion, faeces characteristics and faecal waste production in Nile tilapia (*Oreochromis niloticus* L.), 1157
 Anderson, A J *see* Booth, M A
 Aparecida Moreira, A, Luiz Marques Moreira, H & Wagner Silva Hilsdorf, A. Comparative growth performance of two Nile tilapia (Chitralada and Red-Stirling), their crosses and the Israeli tetra hybrid ND-56, 1049
 Arago, A L *see* Basiao, Z U
 Arcos, F G, Palacios, E, Ibarra, A M & Racotta, I S. Larval quality in relation to consecutive spawnings in white shrimp *Litopenaeus vannamei* Boone, 890
 Arnold, S *see* Peixoto, S
 Asakura, C *see* Sugita, H
 Astorga, N, Afonso, J M, Zamorano, M J, Montero, D, Oliva, V & Fernández, M S I. Evaluation of visible implant elastomer tags for tagging juvenile gilthead seabream (*Sparus auratus* L.): effects on growth, mortality, handling time and tag loss, 733
 Asturiano, J F, Pérez, L, Garzón, D L, Peñaranda, D S, Marco-Jiménez, F, Martínez-Llorens, S, Tomás, A & Jover, M. Effect of different methods for the induction of spermiogenesis on semen quality in European eel, 1480
 Attard, M G *see* Harris, J O
 Aubin, J, Gatesoupe, F-J, Labbé, L & Lebrun, L. Trial of probiotics to prevent the vertebral column compression syndrome in rainbow trout (*Oncorhynchus mykiss* Walbaum), 758
 Audet, C *see* de Montgolfier, B
 Avila, S *see* Ibarra, A M
 Avnimelech, Y *see* Jiménez-Montealegre, R
 Ayyappan, S *see* Das, P C
 Bai, S C *see* Koo, J-G
 Barat, A *see* Das, P
 Baron, S *see* Taris, N
 Barraza-Guardado, R *see* Gómez-Jiménez, S
 Barton, B A, Ribas, L, Acerete, L & Tort, L. Effects of chronic confinement on physiological responses of juvenile gilthead sea bream, *Sparus aurata* L., to acute handling, 172
 Baruah, K, Pal, A K, Sahu, N P, Jain, K K, Mukherjee, S C & Debnath, D. Dietary protein level, microbial phytase, citric acid and their interactions on bone mineralization of *Labeo rohita* (Hamilton) juveniles, 803
 Basavaraja, N & Hegde, S N. Some characteristics and short-term preservation of spermatozoa of Deccan mahseer, *Tor khudree* (Sykes), 422
 Basiao, Z U, Arago, A L & Doyle, R W. A farmer-oriented Nile tilapia, *Oreochromis niloticus* L., breed improvement in the Philippines, 113
 Basiao, Z U, Eguia, R V & Doyle, R W. Growth response of Nile tilapia fry to salinity stress in the presence of an 'internal reference' fish, 712
 Basiao, Z U *see* Romana-Eguia, M R R
 Bechara, J A, Roux, J P, Ruiz Diaz, F J, Flores Quintana, C I & Longoni de Meabe, C A. The effect of dietary protein level on pond water quality and feed utilization efficiency of pacu *Piaractus mesopotamicus* (Holmberg, 1887), 546
 Benton, C *see* King, W
 Berlinsky, D L *see* King, W
 Berlinsky, D L *see* Schnaittacher, G
 Bertrán, C *see* Vargas, L
 Bin, K & Xian, W W. Feeding level-scaled retention efficiency, growth and energy partitioning of a marine detritivorous fish, redlip mullet (*Liza haematocheila* T. & S.), 906
 Bjørnevik, M *see* Stien, I H
 Blanc, J M, Maunas, P & Vallée, F. Effect of triploidy on paternal and maternal variance components in brown trout, *Salmo trutta* L., 1026
 Blanc, J M, Vallée, F, Maunas, P & Fouriot, J-P. Maternal variation in juvenile survival and growth of triploid hybrids between female rainbow trout and male brown trout and brook charr, 120
 Blanchard, G *see* Nyina-wamwiza, L
 Blemings, K P *see* Silverstein, J T
 Bochicchio, D *see* Maranesi, M
 Booth, M A, Allan, G L & Anderson, A J. Investigation of the nutritional requirements of Australian snapper *Pagrus auratus* (Bloch & Schneider, 1801): apparent digestibility of protein and energy sources, 378
 Bosworth, B G & Wolters, W. Effects of short-term feed restriction on production, processing and body shape traits in market-weight channel catfish, *Ictalurus punctatus* (Rafinesque), 344
 Boudry, P *see* Taris, N
 Boyd, C E *see* Wudtisn, W
 Boyd, P *see* Rowland, S J
 Browdy, C L *see* Sowers, A D

- Brown, B. L., Butt, A. J., Meritt, D. & Paynter, K. T. Evaluation of resistance to Dermo in eastern oyster strains tested in Chesapeake Bay, 1544
- Brown, B. L., Butt, A. J., Shelton, S. W., Meritt, D. & Paynter, K. T. Resistance of Dermo in eastern oysters, *Crassostrea virginica* (Gmelin), of North Carolina but not Chesapeake Bay Heritage, 1391
- Brzuska, E. Artificial spawning of carp (*Cyprinus carpio* L.): differences between females of Polish strain 6 and Hungarian strain W treated with carp pituitary homogenate, Ovopel or Dagin, 1015
- Bui, A. T. *see* Nguyen, H. S.
- Bulboacă, C. R., Macchiavello, J. E., Oliveira, E. C. & Fonck, E. First attempt to cultivate the carrageenan-producing seaweed *Chondracanthus chamissoi* (C. Agardh) Kützling (Rhodophyta: Gigartinales) in Northern Chile, 1069
- Burke, C. M. *see* Harris, J. O.
- Burr, G. S. *see* Li, P.
- Butler, R. *see* Green, T. J.
- Butt, A. J. *see* Brown, B. L.
- Cabrini, L. *see* Maranesi, M.
- Cain, K. D. *see* Drennan, J. D.
- Cairns, S. C. *see* Troup, A. J.
- Calado, R., Rosa, R., Morais, S., Nunes, M. L. & Narciso, L. Growth, survival, lipid and fatty acid profile of juvenile monaco shrimp *Lysemata seticaudata* fed on different diets, 493
- Cardenete, G. *see* Morales, A.
- Cardenete, G. *see* Morales, A. E.
- Carrillo, M. *see* Maldonado-García, M.
- Carrothers, T. K. *see* Drennan, J. D.
- Carter, C. G. *see* Engin, K.
- Carton, A. G. The impact of light intensity and algal-induced turbidity on first-feeding *Seriola lalandi* larvae, 1588
- Cassara, M. C. *see* Miranda, L. A.
- Castell, J. D. *see* Pearce, C. M.
- Chandrasekara, H. U. & Pathiratne, A. Influence of low concentrations of Trichlorfon on haematological parameters and brain acetylcholinesterase activity in common carp, *Cyprinus carpio* L., 144
- Chandross, K. P., Cooke, S. J., McKinley, R. S. & Moccia, R. D. Use of electromyogram telemetry to assess the behavioural and energetic responses of rainbow trout, *Oncorhynchus mykiss* (Walbaum) to transportation stress, 1230
- Chang, Y. *see* Wang, L.
- Chatain, B. *see* Menu, B.
- Chatzifotis, S., Pavlidis, M., Jimeno, C. D., Vardanis, G., Steriotti, A. & Divanach, P. The effect of different carotenoid sources on skin coloration of cultured red porgy (*Pagrus pagrus*), 1517
- Chávez-Villalba, J., López-Tapia, M., Mazon-Suástegui, J. & Robles-Mungaray, M. Growth of the oyster *Crassostrea corteziensis* (Hertlein, 1951) in Sonora, Mexico, 1337
- Chen, S.-M. *see* Lee, A.-C.
- Chen, Y., Ke, C.-H., Zhou, S.-Q. & Li, F.-X. Effects of food availability on feeding and growth of cultivated juvenile *Babylonia formosae habei* (Altena & Gittenberger 1981), 94
- Cherop, L. *see* Liti, D.
- Chhorn, L. *see* Liti, D.
- Choubert, G., Cravedi, J.-P. & Laurentie, M. Pharmacokinetics and bioavailabilities of ¹⁴C-keto-carotenoids, astaxanthin and canthaxanthin, in rainbow trout, *Oncorhynchus mykiss*, 1526
- Chuaduangpui, P. & Ikejima, K. Evaluation of water requirement for management of a seawater irrigation system for shrimp farms in Thailand, 725
- Civera-Cerecedo, R. *see* Gracia-López, V.
- Cloud, J. G. *see* Holcomb, M.
- Coffigny, R. S. *see* Lamela, R. E. L.
- Coman, F. E. *see* Norris, B. J.
- Coman, G. *see* Peixoto, S.
- Cook, M. A., Guthrie, K. M., Rust, M. B. & Plesha, P. D. Effects of salinity and temperature during incubation on hatching and development of lingcod *Ophiodon elongatus* Girard, embryos, 1298
- Cooke, S. J. *see* Chandross, K. P.
- Cosson, J. *see* Alavi, S. M. H.
- Courtenay, S. C. *see* Mayrand, E.
- Coyle, S. D. *see* Tidwell, J. H.
- Coyle, S. D. *see* Yasharian, D.
- Craig, R. *see* Fromont, J.
- Cravedi, J.-P. *see* Choubert, G.
- Crawford, A. C., Richardson, N. R. & Mather, P. B. A comparative study of cellulase and xylanase activity in freshwater crayfish and marine prawns, 586
- Crocos, P. *see* Peixoto, S.
- Cruz, P. *see* Ibarra, A. M.
- Cruz-Casallas, P. E., Lombo-Rodríguez, D. A. & Velasco-Santamaría, Y. M. Milt quality and spermatozoa morphology of captive *Brycon siebenthalae* (Eigenmann) broodstock, 682
- Czumirska, K. *see* Ostaszewska, T.
- D'Abramo, L. R. *see* Tidwell, J. H.
- Dabrowski, K. *see* Ostaszewska, T.
- Das, P., Gupta, A. & Manna, S. K. Heat shock protein 70 expression in different tissues of *Cirrhinus mrigala* (Ham.) following heat stress, 525
- Das, P., Prasad, H., Meher, P. K., Barat, A. & Jana, R. K. Evaluation of genetic relationship among six *Labeo* species using randomly amplified polymorphic DNA (RAPD), 564
- Das, P. C., Ayyappan, S. & Jena, J. Comparative changes in water quality and role of pond soil after application of different levels of organic and inorganic inputs, 785
- Davis, D. A. *see* Miller, C. L.
- Davis, K. B. *see* Li, P.
- De Graaf, G. & Prein, M. Fitting growth with the von Bertalanffy growth function: a comparison of three approaches of multivariate analysis of fish growth in aquaculture experiments, 100
- De Silva, S. *see* Abery, N.
- De Silva, S. S. *see* Ingram, B.
- De Silva, S. S. *see* Nguyen, H. S.
- Debnath, D., Pal, A. K., Sahu, N. P., Jain, K. K., Yengkokpam, S. & Mukherjee, S. C. Effect of dietary microbial phytase supplementation on growth and nutrient digestibility of *Pangasius pangasius* (Hamilton) fingerlings, 180
- Debnath, D., Sahu, N. P., Pal, A. K., Jain, K. K., Yengkokpam, S. & Mukherjee, S. C. Mineral status of *Pangasius pangasius* (Hamilton) fingerlings in relation to supplemental phytase: absorption, whole-body and bone mineral content, 326
- Debnath, D. *see* Baruah, K.
- Deepak, P. K. *see* Sarkar, U. K.
- DeHayr, L. *see* Harris, J. O.
- Dekker, P. J. *see* de Graaf, G. J.
- Delgado, M. J. *see* de Pedro, N.
- Dematawewa, C. M. B. *see* Sundarabharathy, T. V.
- Demska-Zakeš, K., Zakeš, Z. & Roszuk, J. The use of tannic acid to remove adhesiveness from pikeperch, *Sander lucioperca*, eggs, 1458
- Dinis, M. T. *see* Makridis, P.
- Dionisio, L. C. *see* Makridis, P.
- Divanach, P. *see* Chatzifotis, S.
- Divanach, P. *see* Koumoundouros, G.
- Dominguez, M., Takemura, A. & Tsuchiya, M. Effects of changes in environmental factors on the non-specific immune response of Nile tilapia, *Oreochromis niloticus* L., 391
- Dong, Q., Eudeline, B., Huang, C. & Tiersch, T. R. Standardization of photometric measurement of sperm concentration from diploid and tetraploid Pacific oysters, *Crassostrea gigas* (Thunberg), 86
- Doupé, R. G. & Lymbery, A. J. Additive genetic and other sources of variation in growth traits of juvenile black bream *Acanthopagrus butcheri*, 621
- Doupé, R. G. & Lymbery, A. J. Genetic covariation in production traits of sub-adult black bream *Acanthopagrus butcheri* after grow-out, 1129
- Doupé, R. G., Sarre, G. A., Partridge, G. J., Lymbery, A. J. & Jenkins, G. I. What are the prospects for black bream *Acanthopagrus butcheri* (Munro) aquaculture in salt-affected inland Australia?, 1345
- Doyle, R. W. *see* Basiao, Z. U.
- Drastichová, J. *see* Svobodová, Z.
- Drennan, J. D., Ireland, S., LaPatra, S. E., Grabowski, L., Carrothers, T. K. & Cain, K. D. High-density rearing of white sturgeon *Acipenser transmontanus* (Richardson) induces white sturgeon iridovirus disease among asymptomatic carriers, 824
- Du, Z.-Y. *see* Wang, Y.

- Dumas, S *see* Peña, R
Dunn, D *see* Koch, V
- Eding, E H *see* Amirkolaie, A K
Edirisinghe, U *see* Sundarabharathy, T V
Edwards, S J *see* Harris, J O
Eguia, R V *see* Basiao, Z U
El-Din, S A S *see* Sweilum, M A
El-Saidy, D M S D & Gaber, M M A. Effect of dietary protein levels and feeding rates on growth performance, production traits and body composition of Nile tilapia, *Oreochromis niloticus* (L.) cultured in concrete tanks, 163
El-Shafai, S A *see* Amirkolaie, A K
Engin, K & Carter, C G. Fish meal replacement by plant and animal by-products in diets for the Australian short-finned eel, *Anguilla australis australis* (Richardson), 445
Erolodogan, O T, Kumlu, M. Kr, M & Kiris, G A. Enhancement of growth and feed utilization of the European sea bass (*Dicentrarchus labrax*) fed supplementary dietary salt in freshwater, 361
Esquerre-Brauer, I R *see* Gómez-Jiménez, S
Eudeline, B *see* Dong, Q
Eversole, A G *see* Mazlum, Y
- Fairchild, E A, Fleck, J & Howell, W H. Determining an optimal release site for juvenile winter flounder *Pseudopleuronectes americanus* (Walbaum) in the Great Bay Estuary, NH, USA, 1374
Falk-Petersen, I-B *see* Sund, T
Fernández, M S I *see* Astorga, N
Fleck, J *see* Fairchild, E A
Flores Quintana, C I *see* Bechara, J A
Fonck, E *see* Bulboa, C R
Fornieris, G *see* Palmegiano, G B
Fotadar, R *see* Neil, L L
Fountoulaki, E, Alexis, M N, Nengas, I and Venou, B. Effect of diet composition on nutrient digestibility and digestive enzyme levels of gilthead sea bream (*Sparus aurata* L.), 1243
Fouriot, J-P *see* Blanc, J M
Fromont, J, Craig, R, Rawlinson, L & Alder, J. Excavating sponges that are destructive to farmed pearl oysters in Western and Northern Australia, 150
Fu, S-J, Xie, X-J & Cao, Z-D. Effect of dietary composition on specific dynamic action in southern catfish *Silurus meridionalis* Chen, 1384
Fulanda, B *see* Liti, D M
Fuller Jr, J C *see* Siwicki, A K
- Gaber, M M A *see* El-Saidy, D M S D
Gal, F *see* Palmegiano, G B
Gamal, N E *see* Muendo, P N
Gao, D *see* Li, J
Gao, Y *see* Jia, Y
García-García, B *see* Aguado-Giménez, F
García-Rejón, L *see* Morales, A
García-Rejón, L *see* Morales, A
Garzón, D L *see* Asturiano, J F
Gasco, L *see* Palmegiano, G B
Gatesoupe, F-J *see* Aubin, J
Gatlin, D M *see* Li, P
Gatlin, D M *see* Sowers, A D
Gatlin, D M *see* Whiteman, K W
Gela, D *see* Kocour, M
Georgakopoulou, E *see* Koumoundouros, G
Georgiou, G *see* Koumoundouros, G
Gerardo García, H *see* Peña, R
Gilbey, J *see* Hassanien, H A
Gill, T A *see* Saha, M R
Giri, S *see* Sahoo, S
Giri, S S *see* Sahoo, S K
Glabski, E *see* Siwicki, A K
Glendenning, D *see* Rowland, S J
Goff, J *see* Li, P
Gollas-Galván, T *see* Vargas-Albores, F
Gomes, L C *see* Roubach, R
Gómez-Gómez, A I *see* Montaña-Pérez, K
Gómez-Jiménez, S, González-Félix, M L, Perez-Velazquez, M, Trujillo-Villalba, D A, Esquerre-Brauer, I R & Barraza-Guardado, R. Effect of dietary protein level on growth, survival and ammonia efflux rate of *Litopenaeus vannamei* (Boone) raised in a zero water exchange culture system, 834
González-Félix, M L *see* Gómez-Jiménez, S
Gooley, G *see* Ingram, B
Goswami, M *see* Lakra, W S
de Graaf, G J, Dekker, P J, Huisman, B & Verreth, J A J. Simulation of Nile tilapia (*Oreochromis niloticus niloticus* L.) culture in ponds, through individual-based modelling, using a population dynamic approach, 455
Grabowski, L *see* Drennan, J D
Gracia-López, V, Kiewek-Martínez, M, Maldonado-García, M, Monsalvo-Spencer, P, Portillo-Clark, G, Civera-Cerecedo, R, Linares-Aranda, M, Robles-Mungaray, M & Mazón-Suástegui, J M. Larvae and juvenile production of the leopard grouper, *Mycteroperca rosacea* (Streets, 1877), 110
Gracia-López, V *see* Maldonado-García, M
Green, T J, Powell, M D, Harris, J O & Butler, R. Effects of dissolved organic carbon and hardness in freshwater used to treat amoebic gill disease, 398
Groch, L *see* Svobodová, Z
de Groot, S J. Keys to the Freshwater Fish of Britain and Ireland, with Notes on their Distribution and Ecology, 828
Grubert, M A & Ritar, A J. The effect of temperature and conditioning interval on the spawning success of wild-caught blacklip (*Haliotis rubra*, Leach 1814) and greenlip (*H. laevigata*, Donovan 1808) abalone, 654
Guanzon, N G *see* Leño, E M
Guijarro, A I *see* de Pedro, N
Guo, X *see* Wang, L
Gupta, A *see* Das, P
Guthrie, K M *see* Cook, M A
- Hao, Y *see* Jia, Y
Harmon, P R *see* Peterson, R H
Harpaz, S, Slosman, T & Segev, R. Effect of feeding guppy fish fry (*Poecilia reticulata*) diets in the form of powder versus flakes, 996
Harris, J O, Burke, C M, Edwards, S J & Johns, D R. Effects of oxygen supersaturation and temperature on juvenile greenlip, *Haliotis laevigata* Donovan, and blacklip, *Haliotis rubra* Leach, abalone, 1400
Harris, J O, Powell, M D, Attard, M G & DeHayr, L. Clinical assessment of chloramine-T and freshwater as treatments for the control of gill amoebae in Atlantic salmon, *Salmo salar* L., 776
Harris, J O *see* Green, T J
Hassanien, H A & Gilbey, J. Genetic diversity and differentiation of Nile tilapia (*Oreochromis niloticus*) revealed by DNA microsatellites, 1450
Hegde, S N *see* Basavaraja, N
Hernández-Herrera, A *see* Maldonado-García, M
Hernández-Ibarra, N K *see* Ibarra, A M
Hernández-López, J *see* Vargas-Albores, F
Hillsgrrove, S *see* King, W
Hirmas, E *see* Stien, L H
Holcomb, M, Cloud, J G & Ingermann, R L. Impact of bacteria on short-term storage of salmonid eggs, 1555
Hooper, B *see* King, W
Hosokawa, H *see* Kofuji, P Y M
Hossain, M A *see* Ali, M Z
Hostuttler, M *see* Silverstein, J T
Howell, W H *see* Fairchild, E A
Huang, C *see* Dong, Q
Huisman, B *see* de Graaf, G J
Huy Glap, D, Yi, Y & Kwel Lin, C. Effects of different fertilization and feeding regimes on the production of integrated farming of rice and prawn *Macrobrachium rosenbergii* (De Man), 292
- Ibarra, A M, Hernández-Ibarra, N K, Cruz, P, Pérez-Enríquez, R, Ávila, S & Ramírez, J L. Genetic certification of presumed hybrids of blue × red abalone (*Haliotis fulgens* Philippi and *H. rufescens* Swainson), 1356
Ibarra, A M *see* Arcos, F G

- Ikeda, M *see* Romana-Eguia, M R R
 Ikeda, Y, Sakurazawa, I, Ito, K, Sakurai, Y & Matsumoto, G. Rearing of squid hatchlings, *Heterololigo bleekeri* (Kieferstein 1866) up to 2 months in a closed seawater system, 409
 Ikejima, K *see* Chuaduangpui, P
 Imada, K *see* Mizuno, S
 Imsland, A K & Jonassen, T M. The relation between age at first maturity and growth in Atlantic halibut (*Hippoglossus hippoglossus*) reared at four different light regimes, 1
 Ingermann, R L *see* Holcomb, M
 Ingermann, R L *see* Zuccarelli, M D
 Ingram, B, Sungan, S, Gooley, G, Sim, S Y, Tinggi, D & De Silva, S S. Induced spawning, larval development and rearing of two indigenous Malaysian mahseer, *Tor tambroides* and *T. douronensis*, 1001
 Ireland, S *see* Drennan, J D
 Isely, J J *see* Sowers, A D
 Ishikawa, M *see* Michael, F R
 Ishikawa, M *see* Moe, Y Y
 Ito, K *see* Ikeda, Y
 Jain, A K *see* Shakeeb-Ur-Rahman
 Jain, K K *see* Baruah, K
 Jain, K K *see* Debnath, D
 James, P J *see* Woods, C M C
 Jana, R K *see* Das, P
 Jee, J-H, Masroor, F & Kang, J-C. Responses of cypermethrin-induced stress in haematological parameters of Korean rockfish, *Sebastes schlegelii* (Hilgendorf), 898
 Jee, J-H *see* Koo, J-G
 Jena, J *see* Das, P C
 Jenkins, G I *see* Doupe, R G
 Jia, Y, Yang, Z, Hao, Y & Gao, Y. Effects of animal-plant protein ratio in extruded and expanded diets on nitrogen and energy budgets of juvenile Chinese soft-shelled turtle (*Pelodiscus sinensis* Wiegmann), 61
 Jiménez-Montalegre, R, Avnimelech, Y, Verreth, J A J & Verdegem, M C J. Nitrogen budget and fluxes in *Colossoma macropomum* ponds, 8
 Jiménez-Montalegre, R, Verdegem, M C J, van Dam, A A & Verreth, J A. Effect of organic nitrogen and carbon mineralization on sediment organic matter accumulation in fish ponds, 983
 Jimeno, C D *see* Chatzifotis, S
 Jobling, M. Capture-based aquaculture. The fattening of eels, groups, tunas and yellowtails, 207
 Johns, D R *see* Harris, J O
 Jonassen, T M *see* Imsland, A K
 Jones, C L W & Kaiser, H. Movement of juvenile swordtail (*Xiphophorus helleri* Heckel) through a tank bottom grid depends on combinations of grid and tank colour, 513
 Jover, M *see* Asturiano, J F
 Kaiser, H *see* Jones, C L W
 Kang, J-C *see* Jee, J-H
 Kang, J-C *see* Koo, J-G
 Kang, K H *see* Zhang, Z F
 Kapoor, D *see* Sarkar, U K
 Karlsen, O *see* Stien, L H
 Karplus, I. Social control of growth in *Macrobrachium rosenbergii* (De Man): a review and prospects for future research, 238
 Kaspiris, P *see* Koumoundouros, G
 Kazuñ, K *see* Siwicki, A K
 Ke, C-H *see* Chen, Y
 Kentouri, M *see* Koumoundouros, G
 Keshavanath, P *see* Mridula, R M
 Kestemont, P *see* Nyina-wamwiza, L
 Khan, M A *see* Ahmed, I
 Kiessling, A *see* Stien, L H
 Kiewek-Martínez, M *see* Gracia-López, V
 Kim, J-M *see* Koo, J-G
 Kim, S-G *see* Koo, J-G
 King, V W *see* Schnaittacher, G
 King, W, Hooper, B, Hills Grove, S, Benton, C & Berlinsky, D L. The use of clove oil, metomidate, tricaine methanesulphonate and 2-phenoxyethanol for inducing anaesthesia and their effect on the cortisol stress response in black sea bass (*Centropristis striata* L.), 1442
 Kir, M *see* Kumlu, M
 Kiriakou, Y *see* Koumoundouros, G
 Kiris, G A *see* Eroldogan, O T
 Klesius, P H *see* McNulty, S T
 Klesius, P H *see* Shoemaker, C A
 Koch, V, Suástegui, J M M, Sinsel, F, Mungaray, M R & Dunn, D. Lion's paw scallop (*Nodipecten subnodosus*, Sowerby 1835) aquaculture in Bahía Magdalena, Mexico: effects of population density and season on juvenile growth and mortality, 505
 Kocour, M, Gela, D, Rodina, M & Linhart, O. Testing of performance in common carp *Cyprinus carpio* L. under pond husbandry conditions I: top-crossing with Northern mirror carp, 1207
 Koeypudsa, W, Yakupitiyage, A & Tangtrongpiros, J. The fate of chlortetracycline residues in a simulated chicken-fish integrated farming systems, 570
 Kofuji, P Y M, Akimoto, A, Hosokawa, H & Masumoto, T. Seasonal changes in proteolytic enzymes of yellowtail *Seriola quinqueradiata* (Temminck & Schlegel; Carangidae) fed extruded diets containing different protein and energy levels, 696
 Koike, Y *see* Ahmed, F
 Koo, J-G, Kim, S-G, Jee, J-H, Kim, J-M, Bai, S C & Kang, J-C. Effects of ammonia and nitrite on survival, growth and moulting in juvenile tiger crab, *Orithya sinica* (Linnaeus), 79
 Koshio, S *see* Michael, F R
 Koshio, S *see* Moe, Y Y
 Koskela, J *see* Pirhonen, J
 Kotoulas, G *see* Makridis, P
 Koumoundouros, G, Kouttoui, S, Georgakopoulou, E, Papadakis, I, Maingot, E, Kaspiris, P, Kiriakou, Y, Georgiou, G, Divanach, P, Kentouri, M & Mylonas, C C. Ontogeny of the shi drum *Umbrina cirrosa* (Linnaeus 1758), a candidate new species for aquaculture, 1265
 Kouttoui, S *see* Koumoundouros, G
 Kowalska, A *see* Siwicki, A K
 Kr, M *see* Eroldogan, O T
 Kroupová, H *see* Svobodová, Z
 Kumai, H *see* Sawada, Y
 Kumar, K D *see* Shakeeb-Ur-Rahman
 Kumlu, M & Kir, M. Food consumption, moulting and survival of *Penaeus semisulcatus* during over-wintering, 137
 Kumlu, M *see* Eroldogan, O T
 Kuttu, M N. Towards sustainable freshwater prawn aquaculture – lessons from shrimp farming, with special reference to India, 255
 Kwei Lin, C *see* Huy Giap, D
 Labbé, L *see* Aubin, J
 Lahnsteiner, F *see* Mansour, N
 Laining, T *see* Usman
 Lakra, W S *see* Patil, R
 Lall, S P *see* Saha, M R
 Lambert, Y *see* de Montgolfier, B
 Lamela, R E L, Coffigny, R S, Quintana, Y C & Martínez, M. Phenoloxidase and peroxidase activity in the shrimp *Litopenaeus schmitti*, exposed to low salinity, 1293
 LaPatra, S E *see* Drennan, J D
 Laurente, M *see* Choubert, G
 Lawrence, A L *see* Schlosser, S C
 Lawrence, J M *see* Schlosser, S C
 Le, L T *see* Nguyen, H S
 Leão, E M, Lio-Po, G D, Nadong, L A, Tirado, A C, Sadaba, R B & Guanzone, N G. Mycol flora of the 'green water' culture system of tiger shrimp *Penaeus monodon* Fabricius, 1581
 Leão Fonseca, F A *see* Roubach, R
 Lebrun, L *see* Aubin, J
 Lee, A-C, Lin, C-R & Chen, S-M. Acclimation of Mozambique tilapia (*Oreochromis mossambicus*) to salinity changes alters protein content of the larvae and their liver and kidney, 936
 Leenhouders, J I *see* Amirkolaie, A K
 Li, F-X *see* Chen, Y

- Li, J., Gao, D., Wang, Q., Wang, J. & Wang, Q. Efficacy of *Vibrio anguillarum* antigen administered by intraperitoneal injection route in Japanese flounder, *Paralichthys olivaceus* (Temminck et Schlegel), 1105
- Li, P., Burr, G. S., Goff, J., Whiteman, K. W., Davis, K. B., Vega, R. R., Neill, W. H. & Gatlin, D. M. A preliminary study on the effects of dietary supplementation of brewers yeast and nucleotides, singularly or in combination, on juvenile red drum (*Sciaenops ocellatus*), 1121
- Lin, C.-R. see Lee, A.-C.
- Lin, J. see Penha-Lopes, G.
- Linares-Aranda, M. see Gracia-López, V.
- Linhart, O. see Kocour, M.
- Lio-Po, G. D. see Leão, E. M.
- Liti, D., Cherop, L., Munguti, J. & Chhorn, L. Growth and economic performance of Nile tilapia (*Oreochromis niloticus* L.) fed on two formulated diets and two locally available feeds in fertilized ponds, 746
- Liti, D. M., Fulanda, B., Munguti, J. M., Straif, M., Waidbacher, H. & Winkler, G. Effects of open-pond density and caged biomass of Nile Tilapia (*Oreochromis niloticus* L.) on growth, feed utilization, economic returns and water quality in fertilized ponds, 1535
- Liu, L. see Tan, B.
- Liu, Y. see Yang, H.
- Liu, Y.-J. see Wang, Y.
- Lombo-Rodríguez, D. A. see Cruz-Casallas, P. E.
- Longoni de Meabe, C. A. see Bechara, J. A.
- López-Patiño, M. A. see de Pedro, N.
- López-Tapia, M. see Chávez-Villalba, J.
- Luiz Marques Moreira, H. see Aparecida Moreira, A.
- Lupatsch, I. see Schlosser, S. C.
- Lusková, V. see Svobodová, Z.
- Lymbery, A. J. see Doupe, R. G.
- Lyndon, A. R. see Papoutsoglou, E. S.
- Macchiavello, J. E. see Bulboa, C. R.
- Máchová, J. see Svobodová, Z.
- Maeda-Martínez, A. N. see Sainz-Hernández, J. C.
- Magoulas, A. see Makridis, P.
- Mai, K. see Tan, B.
- Maingot, E. see Koumoundouros, G.
- Makridis, P., Martins, S., Tsalavouta, M., Dionisio, L. C., Kotoulas, G., Magoulas, A. & Dinis, M. T. Antimicrobial activity in bacteria isolated from Senegalese sole, *Solea senegalensis*, fed with natural prey, 1619
- Maldonado-García, M., Gracia-López, V., Carrillo, M., Hernández-Herrera, A. & Rodríguez-Jaramillo, C. Stages of gonad development during the reproductive cycle of the blackfin snook, *Centropomus medius* Günther, 554
- Maldonado-García, M. see Gracia-López, V.
- Manissery, J. K. see Mridula, R. M.
- Manna, S. K. see Das, P.
- Mansour, N., Ramoun, A. & Lahnsteiner, F. Quality of testicular semen of the African catfish *Clarias gariepinus* (Burchell, 1822) and its relationship with fertilization and hatching success, 1422
- Mao, Y. see Yang, H.
- Maranesi, M., Marchetti, M., Boicchio, D. & Cabrini, L. Vitamin B₆ supplementation increases the docosahexaenoic acid concentration of muscle lipids of rainbow trout (*Oncorhynchus mykiss*), 431
- Marchetti, M. see Maranesi, M.
- Marco-Jiménez, F. see Asturiano, J. F.
- Martínez, M. see Lamela, R. E. L.
- Martínez-Álvarez, R. see de Pedro, N.
- Martínez-Córdova, L. R. & Peña-Messina, E. Biotic communities and feeding habits of *Litopenaeus vannamei* (Boone 1931) and *Litopenaeus stylirostris* (Simpson 1974) in monoculture and polyculture semi-intensive ponds, 1075
- Martínez-Llorens, S. see Asturiano, J. F.
- Martins, C. I. M., Schrama, J. W. & Verreth, J. A. J. Inherent variation in growth efficiency of African catfish *Clarias gariepinus* (Burchell, 1822) juveniles, 868
- Martins, C. I. M., Schrama, J. W. & Verreth, J. A. J. The consistency of individual differences in growth, feed efficiency and feeding behaviour in African catfish *Clarias gariepinus* (Burchell 1822) housed individually, 1509
- Martins, S. see Makridis, P.
- Masroor, F. see Jee, J.-H.
- Masumoto, T. see Kofuji, P. Y. M.
- Mather, P. B. see Crawford, A. C.
- Mather, P. B. see Mohanakumaran Nair, C.
- Matsumoto, G. see Ikeda, Y.
- Maunus, P. see Blanc, J. M.
- Mayrand, E., St-Jean, S. D. & Courtenay, S. C. Haemocyte responses of blue mussels (*Mytilus edulis* L.) transferred from a contaminated site to a reference site: can the immune system recuperate?, 962
- Mazid, M. A. see Ali, M. Z.
- Mazlum, Y. & Eversole, A. G. Growth and survival of *Procambarus acutus acutus* (Girard, 1852) and *P. clarkii* (Girard, 1852) in competitive settings, 537
- Mazón-Suástegui, J. see Chávez-Villalba, J.
- Mazón-Suástegui, J. M. see Gracia-López, V.
- McKinley, R. S. see Chandroo, K. P.
- McNulty, S. T. & Klesius, P. H. Development of an indirect enzyme-linked immunoabsorbent assay using a monoclonal antibody to identify *Ictalurus* sp. fillets, 1279
- Meejing, P. see Meunpol, O.
- Meher, P. K. see Das, P.
- Menu, B., Peruzzi, S., Vergnet, A., Vidal, M.-O. & Chatain, B. A short-cut method for sexing juvenile European sea bass, *Dicentrarchus labrax* L. MACMILL 41
- Meritt, D. see Brown, B. L.
- Meunpol, O., Meejing, P. & Piyatirattivorakul, S. Maturation diet based on fatty acid content for male *Penaeus monodon* (Fabricius) broodstock, 1216
- Mgbenka, B. O. & Ugwu, L. L. C. Aspects of mineral composition and growth rate of the hybrid African catfish fry fed inorganic phosphorus-supplemented diets, 479
- Michael, F. R., Teshima, S.-I., Koshio, S., Ishikawa, M., Uyan, O. & Alam, M. S. Effects of water-soluble and fat-soluble choline sources on the performances of juvenile kuruma shrimp, *Marsupenaeus japonicus* Bate, 1563
- Michael, F. R. see Moe, Y. Y.
- Milfud, C. see Rowland, S. J.
- Miller, C. L., Davis, D. A. & Phelps, R. P. The effects of dietary protein and lipid on growth and body composition of juvenile and sub-adult red snapper, *Lutjanus campechanus* (Poe, 1860), 52
- Milstein, A. see Alim, M. A.
- Mims, S. D. see Onders, R. J.
- Minafik, B. see Rehulka, J.
- Miranda, L. A., Cassarà, M. C. & Somoza, G. M. Increase in milt production by hormonal treatment in the pejerrey fish *Odontesthes bonariensis* (Valenciennes 1835), 1473
- Miyashita, S. see Sawada, Y.
- Mizuno, S., Sasaki, Y. & Imada, K. Changes in seawater tolerance during the development of eyed-stage embryos in shishamo smelt *Spirinchus lanceolatus* (Hikita), 615
- Moccia, R. D. see Chandroo, K. P.
- Moe, Y. Y., Koshio, S., Ishikawa, M., Teshima, S., Panganiban Jr., A., Thu, M., Michael, F. R. & Ren, T. Vitamin C requirement of kuruma shrimp postlarvae, *Marsupenaeus japonicus* (Bate), using L-ascorbyl-2-monophosphate-Na/Ca, 739
- Mohammed, E. H. A. Protein polymorphism and genetic variation in the catfish *Synodontis schall* (Bloch-Schneider, 1801) and *S. serratus* (Ruppel, 1829) from the White Nile (Sudan), 829
- Mohanakumaran Nair, C., New, M. B., Narayanan Kutty, M., Mather, P. B. & Nambudiri, D. D. Freshwater Prawns 2003 – special issue on the international symposium on freshwater prawns, 209
- Monsalvo-Spencer, P. see Gracia-López, V.
- Montaño-Pérez, K., Gómez-Gómez, A. I. & Vargas-Albores, F. Different expression of *Litopenaeus vannamei* (Boone) haemocytes to *Vibrio* and abiotic particle inoculation, 912
- Montero, D. see Astorga, N.
- de Montgolier, B., Audet, C. & Lambert, Y. Growth of early juvenile winter flounder (*Pseudopleuronectes americanus* Walbaum), 1595
- Morais, S. see Calado, R.

- Morales, A. Cardenete, G. Abellán, E. & García-Rejón, L. Erratum, 620
- Morales, A. E. Cardenete, G. Abellán, E. & García-Rejón, L. Stress-related physiological responses to handling in common dentex (*Dentex dentex* Linnaeus, 1758), 33
- Morita, T see Sugita, H
- Mridula, R. M. Manissery, J. K. Keshavanath, P. Shankar, K. M. Nandeesha, M. C. & Rajesh, K. M. Effects of paddy straw and sugarcane bagasse on water quality, bacterial biofilm production and growth and survival of rohu, *Labeo rohita* (Hamilton), 635
- Muendo, P. N. Stoorvogel, J. J. Gamal, N. E. & Verdegem, M. C. J. Rhizoz improved estimation of nutrient losses because of seepage in aquaculture ponds, 1333
- Mukherjee, S. C see Baruah, K
- Mukherjee, S. C see Debnath, D
- Mungaray, M. R. see Koch, V
- Munguti, J. see Liti, D
- Munguti, J. M. see Liti, D. M
- Munro, J. & Owens, L. Haemagglutination as a low-cost detection method for gill-associated virus and by inference, yellowhead virus in *Penaeus monodon* Fabricius, 1798, 1369
- Murata, O. see Sawada, Y
- Mylonas, C. C. see Koumoundouros, G
- Nadong, L. A. see Leño, E. M
- Nambudiri, D. D. see Mohanakumaran Nair, C
- Nandeesha, M. C. see Mridula, R. M
- Narayanan Kutty, M. see Mohanakumaran Nair, C
- Narciso, L. see Calado, R
- Narciso, L. see Penha-Lopes, G
- Negi, R. S. see Sarkar, U. K
- Neill, L. L. Fotedar, R. & Shelley, C. C. Effects of acute and chronic toxicity of unionized ammonia on mud crab, *Scylla serrata* (Forsskal, 1755) larvae, 927
- Neill, W. H. see Li, P
- Nell, J. A. & Perkins, B. Evaluation of progeny of fourth generation Sydney rock oyster *Saccostrea glomerata* (Gould, 1850) breeding lines, 733
- Nell, J. A. & Perkins, B. Studies on triploid oysters in Australia: farming potential of all-triploid Pacific oysters, *Crassostrea gigas* (Thunberg), in Port Stephens, New South Wales, Australia, 530
- Nengas, I. see Fountoulaki, E
- New, M. B. Freshwater prawn farming: global status, recent research and a glance at the future, 210
- New, M. B. see Mohanakumaran Nair, C
- Nguyen, D. Q. see Nguyen, H. S
- Nguyen, H. S., Bui, A. T., Nguyen, D. Q., Truong, D. Q., Le, I. T., Abery, N. W. & De Silva, S. S. Culture-based fisheries in small reservoirs in northern Vietnam: effect of stocking density and species combinations, 1037
- Ni, D. see Wang, L
- Nissen, S. see Siwicki, A. K
- Nixon, M. see Rowland, S. J
- Norris, B. J., Coman, F. E., Sellars, M. J. & Preston, N. P. Triploid induction in *Penaeus japonicus* (Bate) with 6-dimethylaminopurine, 202
- Nortvedt, R. see Stien, L. H
- Nunes, M. L. see Calado, R
- Nyina-wamwiza, L., Xu, X. L., Blanchard, G. & Kestemont, P. Effect of dietary protein, lipid and carbohydrate ratio on growth, feed efficiency and body composition of pikeperch *Sander lucioperca* fingerlings, 486
- Okada, T. see Sawada, Y
- Olech, W. see Ostaszewska, T
- Olejniczak, M. see Ostaszewska, T
- Oliva, D. see Sepúlveda, M
- Oliva, V. see Astorga, N
- Oliveira, E. C. see Bulbova, R. C
- Olsen, R. E. see Saha, M. R
- Onders, R. J., Mims, S. D., Wilhelm, B. A. & Robinson, J. D. Growth, survival and fillet composition of paddlefish, *Polyodon spathula* (Walbaum) fed commercial trout or catfish feeds, 1602
- Ostaszewska, T., Dabrowski, K., Czumińska, K., Olech, W. & Olejniczak, M. Rearing of pike-perch larvae using formulated diets – first success with starter feeds, 1167
- Owens, L. see Munro, J
- Pal, A. K. see Baruah, K
- Pal, A. K. see Debnath, D
- Palacios, E. see Arcos, F. G
- Palmeiano, G. B., Agradi, E., Forneris, G., Gai, F., Gasco, L., Rigamonti, E., Sicuro, B. & Zoccarato, I. Spirulina as a nutrient source in diets for growing sturgeon (*Acipenser baeri*), 188
- Panganiban Jr., A. see Moe, Y. Y
- Papadakis, I. see Koumoundouros, G
- Papoutsoglou, E. S. & Lyndon, A. R. Effect of incubation temperature on carbohydrate digestion in important teleosts for aquaculture, 1252
- Partridge, G. J. see Doupé, R. G
- Pathirane, A. see Chandrasekara, H. U
- Patil, R. & Lakra, W. S. Effect of cryoprotectants, equilibration periods and freezing rates on cryopreservation of spermatozoa of mahseer, *Tor khudree* (Sykes) and *T. putilora* (Hamilton), 1465
- Paul, S. K. see Sarkar, U. K
- Pavlidis, M. see Chatzifotis, S
- Paynter, K. T. see Brown, B. L
- Pearce, C. M., Williams, S. W., Yuan, F., Castell, J. D. & Robinson, S. M. C. Effect of temperature on somatic growth and survivorship of early post-settled green sea urchins, *Strongylocentrotus droebachiensis* (Müller), 600
- Pechsiri, J. & Yakupitiyage, A. A comparative study of growth and feed utilization efficiency of sex-reversed diploid and triploid Nile tilapia, *Oreochromis niloticus* L. MACMILL, 45
- de Pedro, N., Guijarro, A. I., López-Patiño, M. A., Martínez-Álvarez, R. & Delgado, M. J. Daily and seasonal variations in haematological and blood biochemical parameters in the tench, *Tinca tinca* Linnaeus, 1758, 1185
- Peixoto, S., Coman, G., Arnold, S., Crocos, P. & Preston, N. Histological examination of final oocyte maturation and atresia in wild and domesticated *Penaeus monodon* (Fabricius) broodstock, 666
- de la Peña, M. R. & Villegas, C. T. Cell growth, effect of filtrate and nutritive value of the tropical Prasinophyte *Tetraselmis tetraele* (Butcher) at different phases of culture, 1500
- Peña, R., Dumas, S., Trasviña, A., Gerardo García, H. & Pliego-Cortés, H. Effects of tank colour and prey density on first feeding of the spotted sand bass *Paralabrax maculatofasciatus* (Steindachner) larvae, 1226
- Peña-Messina, E. see Martínez-Córdova, L. R
- Peñaranda, D. S. see Asturiano, J. F
- Penha-Lopes, G., Rhine, A. L., Lin, J. & Narciso, L. The larval rearing of the marine ornamental crab, *Mithraculus forceps* (A. Milne Edwards, 1875) (Decapoda: Brachyura: Majidae), 1313
- Pérez, L. see Asturiano, J. F
- Pérez, O. M., Teller, T. C. & Ross, L. G. Geographical information systems-based models for offshore floating marine fish cage aquaculture site selection in Tenerife, Canary Islands, 946
- Pérez-Enriquez, R. see Ibarra, A. M
- Pérez-Velázquez, M. see Gómez-Jiménez, S
- Perkins, B. see Nell, J. A
- Peruzzi, S. see Menu, B
- Peterson, R. H. & Harmon, P. R. Changes in condition factor and gonadosomatic index in maturing and non-maturing Atlantic salmon (*Salmo salar* L.) in Bay of Fundy sea cages, and the effectiveness of photoperiod manipulation in reducing early maturation, 882
- Phelps, R. P. see Miller, C. L
- Phuong, N. T. see Son, V. N
- Pirhonen, J. & Koskela, J. Indirect estimation of stomach volume of rainbow trout *Oncorhynchus mykiss* (Walbaum), 851
- Piyatiratitivorakul, S. see Meunpol, O
- Plesha, P. D. see Cook, M. A
- Pliego-Cortés, H. see Peña, R
- Poleszczuk, G. see Svobodová, Z
- Portillo-Clark, G. see Gracia-López, V
- Powell, M. D. see Green, T. J
- Powell, M. D. see Harris, J. O
- Prasad, H. see Das, P

- Prein, M *see* De Graaf, G
 Preston, N *see* Peixoto, S
 Preston, N P *see* Norris, B J
 Preston, N P *see* Sellars, M J
 Quijón, P *see* Vargas, L
 Quintana, Y C *see* Lamela, R E L
- Rabbani, A G & Zeng, C. Effects of tank colour on larval survival and development of mud crab *Scylla serrata* (Forskål), 1113
 Rachmansyah, A *see* Usman
 Racotta, I S *see* Arcos, F G
 Raj, V S *see* Vijayan, K K
 Rajesh, K M *see* Mridula, R M
 Raju, K D *see* Shakeeb-Ur-Rahman
 Ramirez, J L *see* Ibarra, A M
 Ramoun, A *see* Mansour, N
 Rawlinson, L *see* Fromont, J
 Reddy, G *see* Shakeeb-Ur-Rahman
 Řehulka, J, Minařík, B, Adamec, V & Řehulková, E. Investigations of physiological and pathological levels of total plasma protein in rainbow trout, *Oncorhynchus mykiss* (Walbaum), 22
 Řehulková, E *see* Řehulka, J
 Ren, T *see* Moe, Y Y
 Rhyne, A L *see* Penha-Lopes, G
 Ribas, L *see* Barton, B A
 Richardson, N R *see* Crawford, A C
 Rigamonti, E *see* Palmegiano, G B
 Ritar, A J *see* Grubert, M A
 Robertson, D A *see* Salze, G
 Robinson, J D *see* Onders, R J
 Robinson, S M C *see* Pearce, C M
 Robles-Mungaray, M *see* Chávez-Villalba, J
 Robles-Mungaray, M *see* Gracia-López, V
 Rodina, M *see* Kocour, M
 Rodriguez-Jaramillo, C *see* Maldonado-García, M
 Romana-Eguia, M R R, Ikeda, M, Basiao, Z U & Taniguchi, N. Genetic changes during mass selection for growth in Nile tilapia, *Oreochromis niloticus* (L.), assessed by microsatellites, 69
 Rönsholdt, B. Can carotenoid content in muscle of salmonids be predicted using simple models derived from instrumental colour measurements?, 519
 Rorå, A M B *see* Stien, L H
 Rosa, R *see* Calado, R
 Ross, L G *see* Pérez, O M
 Ross, N W *see* Saha, M R
 Roszuk, J *see* Demska-Zakeš, K
 Roubach, R, Gomes, L C, Leão Fonseca, F A & Val, A L. Eugenol as an efficacious anaesthetic for tambaqui, *Colossoma macropomum* (Cuvier), 1056
 Roux, J P *see* Bechara, J A
 Rowland, S J, Allan, G L, Mifsud, C, Nixon, M, Boyd, P & Glendenning, D. Development of a feeding strategy for silver perch, *Bidyanus bidyanus* (Mitchell), based on restricted rations, 1429
 Rowland, S J *see* Allan, G L
 Roy, W J *see* Salze, G
 Ruiz Diaz, F J *see* Bechara, J A
 Ruohonen, K *see* Ahvenharju, T
 Rust, M B *see* Cook, M A
- Sadaba, R B *see* Leão, E M
 Sagi, A & Alfalo, E D. The androgenic gland and monosex culture of freshwater prawn *Macrobrachium rosenbergii* (De Man): a biotechnological perspective, 231
 Saha, M R, Ross, N W, Gill, T A, Olsen, R E & Lall, S P. Development of a method to assess binding of astaxanthin to Atlantic salmon *Salmo salar* L. muscle proteins, 336
 Sahoo, S, Giri, S & Sahu, A. Induced spawning of Asian catfish, *Clarias batrachus* (Linn.): effect of various latency periods and SGNRHa and domperidone doses on spawning performance and egg quality, 1562
 Sahoo, S K, Giri, S S & Sahu, A K. Induced spawning of Asian catfish, *Clarias batrachus* (Linn.): effect of various latency periods and SGNRHa and domperidone doses on spawning performance and egg quality, 1273
 Sahu, A *see* Sahoo, S
- Sahu, A K *see* Sahoo, S K
 Sahu, N P *see* Baruah, K
 Sahu, N P *see* Debnath, D
 Sainz-Hernández, J C & Maeda-Martínez, A N. Sources of *Vibrio* bacteria in mollusc hatcheries and control methods: a case study, 1611
 Sakurai, Y *see* Ikeda, Y
 Sakurazawa, I *see* Ikeda, Y
 Salin, K R. Live transportation of *Macrobrachium rosenbergii* (De Man) in chilled sawdust, 300
 Salze, G, Tocher, D R, Roy, W J & Robertson, D A. Egg quality determinants in cod (*Gadus morhua* L.): egg performance and lipids in eggs from farmed and wild broodstock, 1488
 Santiago, T C *see* Vijayan, K K
 Sarkar, U K, Deepak, P K, Kapoor, D, Negi, R S, Paul, S K & Singh, S. Captive breeding of climbing perch *Anabas testudineus* (Bloch, 1792) with Wova-FH for conservation and aquaculture, 941
 Sarre, G A *see* Doupe, R G
 Sasaki, Y *see* Mizuno, S
 Sauvage, C *see* Taris, N
 Savolainen, R *see* Ahvenharju, T
 Sawada, Y, Okada, T, Miyashita, S, Murata, O & Kumai, H. Completion of the Pacific bluefin tuna *Thunnus orientalis* (Temminck et Schlegel) life cycle, 413
 Schlosser, S C, Lupatsch, I, Lawrence, J M, Lawrence, A L & Shpigel, M. Protein and energy digestibility and gonad development of the European sea urchin *Paracentrotus lividus* (Lamarck) fed algal and prepared diets during spring and fall, 972
 Schnaittacher, G, King, V W & Berlinsky, D L. The effects of feeding frequency on growth of juvenile Atlantic halibut, *Hippoglossus hippoglossus* L., 370
 Schrama, J W *see* Amirkolaie, A K
 Schrama, J W *see* Martins, C I M
 Segawa, S *see* Ahmed, F
 Segev, R *see* Harpaz, S
 Sekhar, V T *see* Vijayan, K K
 Sellars, M J & Preston, N P. Sexual sterilization of harvest-size *Penaeus japonicus* (Bate) using ionizing irradiation, 1145
 Sellars, M J *see* Norris, B J
 Şen, H. Incubation of European Squid (*Loligo vulgaris* Lamarck, 1798) eggs at different salinities, 876
 Sepúlveda, M & Oliva, D. Interactions between South American sea lions *Otaria flavescens* (Shaw) and salmon farms in southern Chile, 1062
 Shakeeb-Ur-Rahman, Jain, A K, Reddy, G, Kumar, K D & Raju, K D. Ionic manipulation of inland saline groundwater for enhancing survival and growth of *Penaeus monodon* (Fabricius), 1149
 Shankar, K M *see* Mridula, R M
 Shao, M Y *see* Zhang, Z F
 Sharbel, T F *see* Taris, N
 Shelby, R A *see* Shoemaker, C A
 Shelley, C C *see* Neil, L L
 Shelton, S W *see* Brown, B L
 Shoemaker, C A, Xu, D-H, Shelby, R A & Kiesius, P H. Detection of cutaneous antibodies against *Flavobacterium columnare* in channel catfish, *Ictalurus punctatus* (Rafinesque), 813
 Shpigel, M *see* Schlosser, S C
 Sicuro, B *see* Palmegiano, G B
 Silverstein, J T, Hostuttler, M & Blemings, K P. Strain differences in feed efficiency measured as residual feed intake in individually reared rainbow trout, *Oncorhynchus mykiss* (Walbaum), 704
 Sim, S Y *see* Ingram, B
 Simpson, R D *see* Troup, A J
 Singh, H *see* Yusufzai, S I
 Singh, S *see* Sarkar, U K
 Sinsal, F *see* Koch, V
 Siwicki, A K, Zakeš, Z, Fuller Jr, J C, Nissen, S, Trapkowska, S, Glabski, E, Kaziński, K, Kowalska, A & Terech-Majewska, E. The effect of feeding the leucine metabolite β -hydroxy- β -methylbutyrate (HMB) on cell-mediated immunity and protection against *Yersinia ruckeri* in pikeperch (*Sander lucioperca*), 16
 Slosman, T *see* Harpaz, S
 Somoza, G M *see* Miranda, L A
 Son, V N, Yi, Y & Phuong, N T. River pen culture of giant freshwater prawn *Macrobrachium rosenbergii* (De Man) in southern Vietnam, 284

- Song, L. *see* Wang, L.
 Sowers, A. D., Gatlin, D. M., Young, S. P., Isely, J. J., Browdy, C. L. & Tomasso, J. R. Responses of *Litopenaeus vannamei* (Boone) in water containing low concentrations of total dissolved solids, 819
 Steriotti, A. *see* Chatzifotis, S.
 Stien, L. H., Hirmas, E., Bjørnøvik, M., Karlsen, O., Nortvedt, R., Rorå, A. M. B., Sunde, J. & Kiessling, A. The effects of stress and storage temperature on the colour and texture of pre-rigor filleted farmed cod (*Gadus morhua* L.), 1197
 Stilwell, W. E. *see* Yasharian, D.
 St-Jean, S. D. *see* Mayrand, E.
 Stoorvogel, J. J. *see* Muendo, P. N.
 Straif, M. *see* Liti, D. M.
 Strüßmann, C. A. *see* Ahmed, F.
 Suástegui, J. M. M. *see* Koch, V.
 Sugita, H., Yamamoto, S., Asakura, C. & Morita, T. Occurrence of *Listonella anguillarum* in seed production environments of Japanese flounder *Paralichthys olivaceus* (Temminck et Schlegel), 920
 Sund, T. & Falk-Petersen, I. –B. Effects of incubation temperature on development and yolk sac conversion efficiencies of spotted wolffish (*Anarhichas minor* Olafsen) embryos until hatch, 1134
 Sundarabharathy, T. V., Edirisinghe, U. & Dematawewa, C. M. B. Breeding and larval rearing of threatened, endemic fish stonesucker, *Garra ceylonensis* (Bleeker), 196
 Sunde, J. *see* Stien, L. H.
 Sungan, S. *see* Ingram, B.
 Svobodová, Z., Máchová, J., Drastichová, J., Groch, L., Lusková, V., Poleszczuk, G., Velíšek, J. & Kroupová, H. Haematological and biochemical profiles of carp blood following nitrite exposure at different concentrations of chloride, 1177
 Swellum, M. A., Abdella, M. M. & El-Din, S. A. S. Effect of dietary protein-energy levels and fish initial sizes on growth rate, development and production of Nile tilapia, *Oreochromis niloticus* L., 1414
 Takemura, A. *see* Dominguez, M.
 Tan, B., Mai, K., Zheng, S., Zhou, Q., Liu, L. & Yu, Y. Replacement of fish meal by meat and bone meal in practical diets for the white shrimp *Litopenaeus vannamei* (Boone), 439
 Tangtrongpiros, J. *see* Koeyupda, W.
 Taniguchi, N. *see* Romana-Eguia, M. R. R.
 Tavis, N., Baron, S., Sharbel, T. F., Sauvage, C. & Boudry, P. A combined microsatellite multiplexing and boiling DNA extraction method for high-throughput parentage analyses in the Pacific oyster (*Crassostrea gigas*), 516
 Teller, T. C. *see* Pérez, O. M.
 Terech-Majewska, E. *see* Siwicki, A. K.
 Teshima, S. *see* Moe, Y. Y.
 Teshima, S.-I. *see* Michael, F. R.
 Thu, M. *see* Moe, Y. Y.
 Tian, L.-X. *see* Wang, Y.
 Tidwell, J. H., D'Abramo, L. R., Coyle, S. D. & Yasharian, D. Overview of recent research and development in temperate culture of the freshwater prawn (*Macrobrachium rosenbergii* De Man) in the South Central United States, 264
 Tidwell, J. H. *see* Yasharian, D.
 Tiersch, T. R. *see* Dong, Q.
 Tinggi, D. *see* Ingram, B.
 Tirado, A. C. *see* Leão, E. M.
 Tocher, D. R. *see* Salze, G.
 Tomás, A. *see* Asturiano, J. F.
 Tomasso, J. R. *see* Sowers, A. D.
 Tort, L. *see* Barton, B. A.
 Trapkowska, S. *see* Siwicki, A. K.
 Trasviña, A. *see* Peña, R.
 Troup, A. J., Cairns, S. C. & Simpson, R. D. Growth and mortality of sibling triploid and diploid Sydney rock oysters, *Saccostrea glomerata* (Gould), in the Camden Haven River, 1093
 Trujillo-Villalba, D. A. *see* Gómez-Jiménez, S.
 Truong, D. Q. *see* Nguyen, H. S.
 Tsalavouta, M. *see* Makridis, P.
 Tsuchiya, M. *see* Dominguez, M.
 Tulonen, J. *see* Ahvenharju, T.
 Ugwu, L. L. C. *see* Mgbenka, B. O.
 Usman, Rachmansyah, A., Laining, T. & Ahmad, K. C. Optimum dietary protein and lipid specifications for grow-out of hump-back grouper *Cromileptes altivelis* (Valenciennes), 1285
 Uyan, O. *see* Michael, F. R.
 Val, A. L. *see* Roubach, R.
 Vallée, F. *see* Blanc, J. M.
 van Dam, A. A. *see* Jiménez-Montealegre, R.
 Vardanis, G. *see* Chatzifotis, S.
 Vargas, L., Quijón, P. & Bertrán, C. Polychaete infestation in cultured abalone (*Haliotis rufescens* Swainson) in Southern Chile, 721
 Vargas-Albores, F., Gollas-Galván, T. & Hernández-López, J. Functional characterization of *Farfantepenaeus californiensis*, *Litopenaeus vannamei* and *L. stylirostris* haemocyte separated using density gradient centrifugation, 352
 Vargas-Albores, F. *see* Montaña-Pérez, K.
 Vega, R. R. *see* Li, P.
 Velasco-Santamaría, Y. M. *see* Cruz-Casallas, P. E.
 Velíšek, J. *see* Svobodová, Z.
 Venou, B. *see* Fountoulaki, E.
 Verdegem, M. C. J. *see* Jiménez-Montealegre, R.
 Verdegem, M. C. J. *see* Muendo, P. N.
 Vergnet, A. *see* Menu, B.
 Verreth, J. A. *see* Jiménez-Montealegre, R.
 Verreth, J. A. J. *see* Amirkolaie, A. K.
 Verreth, J. A. J. *see* de Graaf, G. J.
 Verreth, J. A. J. *see* Jiménez-Montealegre, R.
 Verreth, J. A. J. *see* Martins, C. I. M.
 Vidal, M.-O. *see* Menu, B.
 Vijayan, K. K., Raj, V. S., Alavandi, S. V., Sekhar, V. T. & Santiago, T. C. Incidence of white muscle disease, a viral like disease associated with mortalities in hatchery-reared postlarvae of the giant freshwater prawn *Macrobrachium rosenbergii* (De Man) from the south-east coast of India, 311
 Villegas, C. T. *see* de la Peña, M. R.
 Wagner Silva Hilsdorf, A. *see* Aparecida Moreira, A.
 Wahab, M. A. *see* Alim, M. A.
 Waldbacher, H. *see* Liti, D. M.
 Wang, J. *see* Li, J.
 Wang, J.-T. *see* Wang, Y.
 Wang, L., Song, L., Chang, Y., Xu, W., Ni, D. & Guo, X. A preliminary genetic map of Zhikong scallop (*Chlamys farreri* Jones et Preston 1904), 643
 Wang, Q. *see* Li, J.
 Wang, S. *see* Wang, Y.
 Wang, Y., Liu, Y.-J., Tian, L.-X., Du, Z.-Y., Wang, J.-T., Wang, S. & Xiao, W. P. Effects of dietary carbohydrate level on growth and body composition of juvenile tilapia, *Oreochromis niloticus* × *O. aureus*, 1408
 Watanabe, S. *see* Ahmed, F.
 Whiteman, K. W. *see* Li, P.
 Whiteman, K. W. & Gatlin, D. M. Evaluation of fisheries by-catch and by-product meals in diets for red drum *Sciaenops ocellatus* L., 1572
 Wilhelm, B. A. *see* Onders, R. J.
 Williams, S. W. *see* Pearce, C. M.
 Winkler, G. *see* Liti, D. M.
 Wolters, W. *see* Bosworth, B. G.
 Woods, C. M. C. & James, P. J. Evaluation of passive integrated transponder tags for individually identifying the sea urchin *Echinus chloroticus* (Valenciennes), 730
 Wuditsin, W. & Boyd, C. E. Determination of the phosphorus fertilization rate for bluegill ponds using regression analysis, 593
 Xian, W. W. *see* Bin, K.
 Xiao, W. P. *see* Wang, Y.
 Xie, X.-J. *see* Fu, S.-J.
 Xu, D.-H. *see* Shoemaker, C. A.
 Xu, W. *see* Wang, L.
 Xu, X. L. *see* Nyina-wamwiza, L.
 Yakupitiyage, A. *see* Koeyupda, W.
 Yakupitiyage, A. *see* Pechsiri, J.
 Yamamoto, S. *see* Sugita, H.

- Yang, H. Yuan, X. Zhou, Y. Mao, Y. Zhang, T & Liu, Y. Effects of body size and water temperature on food consumption and growth in the sea cucumber *Apostichopus japonicus* (Selenka) with special reference to aestivation, 1085
- Yang, Z. *see* Jia, Y
- Yasharian, D. Coyle, S D. Tidwell, J H. & Stilwell, W E. The effect of tank colouration on survival, metamorphosis rate, growth and time to metamorphosis freshwater prawn (*Macrobrachium rosenbergii*) rearing, 278
- Yasharian, D. *see* Tidwell, J H
- Yengkokpam, S. *see* Debnath, D
- Yi, Y. *see* Huy Giap, D
- Yi, Y. *see* Son, V N
- Yokota, M. *see* Ahmed, F
- Young, S P. *see* Sowers, A D
- Yu, Y. *see* Tan, B
- Yuan, F. *see* Pearce, C M
- Yuan, X. *see* Yang, H
- Yusufzai, S I & Singh, H. Rearing of *Penaeus monodon* (Fabricius) postlarvae in floating cages at different stocking densities, 405
- Zakeš, Z. *see* Demska-Zakeš, K
- Zakeš, Z. *see* Siwicki, A K
- Zamorano, M J. *see* Astorga, N
- Zeng, C. *see* Rabbani, A G
- Zhang, T. *see* Yang, H
- Zhang, Z F. Shao, M Y & Kang, K H. Changes of enzyme activity and hematopoiesis in Chinese prawn *Fenneropenaeus chinensis* (Osbeck) induced by white spot syndrome virus and zymosan A, 674
- Zheng, S. *see* Tan, B
- Zhou, Q. *see* Tan, B
- Zhou, S-Q. *see* Chen, Y
- Zhou, Y. *see* Yang, H
- Zhuang, S. Influence of salinity, diurnal rhythm and daylength on feeding in *Laternula marilina* Reeve, 130
- Zhuang, S. The influence of body size and water temperature on metabolism and energy budget in *Laternula marilina* Reeve, 768
- Zoccarato, I. *see* Palmegiano, G B
- Zuccarelli, M D & Ingermann, R L. Influence of neutralizing agents on the anaesthetic efficacy of tricaine on *Oncorhynchus mykiss* (Walbaum) fry, 933

Keyword index

- abalone, 721, 799, 1356, 1400
 abiotic encapsulation, 352
 Abor Acres broiler chicken, 570
 acetylcholinesterase, 144
Acipenser persicus, 841
 acoustic harassment devices, 1062
 activation media, 1480
 acute, 927
 acute toxicity, 1177
 additive genetic effects, 621
 adherence, 352
 aestivation, 1085
 AFLP, 643
 African catfish, 868, 1422
 AGD, 398
 age at first maturity, 1
 albumin, 829
 allele frequency, 829
 allozyme, 1356
 alternative protein sources, 445
 ammonia, 79, 834, 927
 ammonium, 890
 amoebae, 776
 α amylase, 1252
Amyloodinium ocellatum, 1121
Anabas testudineus, 941
 anaesthesia, 933
 anaesthetic, 1056, 1442
Anarhichas minor, 1134
 androgenic gland, 231
Anguilla anguilla, 1480
 animal–plant protein ratio, 61
 antagonism, 1619
 antibiotic, 758
 antibody titre, 1105
 anti-predator net, 1062
 apparent protein digestibility, 696
 aquaculture, 100, 120, 413, 505, 516, 643, 946, 1026, 1145, 1473
 arachidonic acid, 1488
Argopecten ventricosus, 1611
Artemia, 196, 409
 artificial selection, 113
 artificial spawning and hatching, 941
 AsA requirement, 739
 ash, 326
 assimilation efficiency, 130
 astaxanthin, 336, 519, 1526
 Atlantic cod *Gadus morhua* L., 1488
 Atlantic halibut, 1
 Atlantic salmon, 398, 776, 882
 Atlantic salmon *Salmo salar* L., 336
 atresia, 666
 Australian short-finned eel, 445

 β -hydroxy- β -methylbutyrate (HMB), 16
Babylonia formosae habei, 94
 background colour, 1113
 bacteria, 1555
 bacterial biofilm, 635
 bacterial clearance, 962
 Bahía Magdalena, 505
 basa, 1279
 basal level, 525
 behaviour, 1230
 binding assay, 336
 bioavailability, 1526
 bioeconomics, 1345
 bivalve larvae, 1611
 black sea bass, 1442
 blackfin snook, 554
 blood biochemistry, 1185
 blood parameters, 33
 bluefin tuna, 610
 bluegill, 593
 body size, 1085
 bone, 326
 bone mineralization, 803
 breeding, 1026
 brewers yeast, 1121
 broodstock, 300, 1611
 broodstock conditioning, 654
 brown trout, 1026
Brycon siebenthalae, 682
 by-catch, 1572
 by-products, 1572

 cage, 1535
 cage culture, 22, 405, 946
 canthaxanthin, 1526
 capacity, 1252
 carbohydrases, 1252
 carbohydrate, 486, 1408
 carcass composition, 472
 carcass quality, 45
 carcass traits, 1414
Carnobacterium, 758
 carotenoids, 1517
 carp, 144
 carp pituitary homogenate, 1015
 carrageenophyte, 1069
 CASA, 1480
 catfish, 344
 catla, 317
 cellulase, 586
Centropomus medius, 554
 channel catfish, 813, 1279
 characteristics, 422
 cheliped injuries, 857
Cherax, 586
 Chesapeake Bay, 1544
 Chile, 1069
Chlamys farreri, 643
 chloramine-T, 776
 chlortetracycline residue, 570
 choline, 1563
Chondracanthus chamissoi, 1069

- Choubert, 578
 chronic, 927
 CIELAB, 519
Cirrhinus mrigala, 525, 687
 citric acid, 803
Clarias batrachus, 1273
Clarias gariepinus, 455
 Climbing perch, 941
 Clonaidae, 150
 closed seawater system, 409
 CO₂, 933
 cod, 1197
 cold anaesthetization, 300
 coloration, 1517
Colossoma macropomum, 1056
 colour contrast, 513
 commercial feeds, 1602
 commercial viability, 1093
 common carp, 317, 1207
 competition, 537
 condition factor, 882
 condition index, 530
 confinement, 172
 cortisol, 172, 1442
 cost-benefit, 1037
 cow dung, 785
Crassostrea corteziensis, 1337
Crassostrea gigas, 86
Crassostrea virginica (Gmelin), 1391, 1544
 crayfish, 537
 crayfish culture, 537
 crustacea, 231
 cryopreservation, 1465
 cryoprotectants, 1465
 culture, 409, 1337
 culture-based fisheries, 1037
 cultured fish, 1374
 cypermethrin, 898
Cyprinus carpio, 1015, 1207
Cyprinus carpio L., 1177
 Dagin, 1015
 daily changes, 1185
 daylength, 130
Debaryomyces hansenii, 758
 decapoda, 231
 decimal coded wire tags, 1129
 deformed larvae, 1422
 density, 824, 1093, 1535
 dentex, 33
 dermo disease, 1544
 detection method, 1369
 detritus, 196
 DHA, 431
Dicentrarchus labrax, 41, 361
 diet, 972, 1216, 1563
 diet specification, 1285
 dietary composition, 1384
 dietary phosphorus, 479
 dietary protein, 486, 834
 dietary protein level, 627
 dietary sodium chloride, 361
 dietary tryptophan requirement growth studies, 687
 differential display, 912
 digestibility, 378, 578, 1157, 1243
 digestion, 586, 1252
 digestive enzymes, 696, 1243
 digestive tract histology, 1167
 diploid and triploid Nile tilapia, 45
 discoloration, 530
 diseases, 22, 1391
 diurnal cycle, 130
 duckweed, 578
 early sexual development, 1345
 ecological plasticity, 1345
 effective accumulative temperature, 654
 eggs, 876, 1488, 1555
 eggs adhesiveness, 1458
 ELISA, 391
 energetics, 1230
 energy, 906, 972
 energy budget, 61, 768
 enhancement, 1374
 enteric redmouth disease (ERM), 16
 enzyme activity, 674
 enzymes, 1252
 E/P ratio, 1408
 equilibration time, 1465
 estuary, 1093
 eugenol, 1056
 European eel, 1480
Evechinus chloroticus, 730
 excavating sponges, 150
 extended forced Gulland-and-Holt-plot, 100
 extended Gulland-and-Holt plot, 100
 extruded and expanded feed, 61
 extruded wheat, 378
 eyed-stage embryos, 615
 factorial mating design, 621
 faeces, 578
 faeces recovery, 1157
 farmed, 1488
 farmed rainbow trout, 22
 farmer participatory research, 113
 farmer-managed, 1037
 fattening, 610
 fatty acid composition, 431
 fatty acids, 188, 1488
 FCR, 370, 472
 feed consumption, 472
 feed conversion rate, 610
 feed conversion ratio, 546
 feed costs, 627
 feed efficiency, 361, 486, 704
 feed intake, 851
 feed management, 472
 feed mixture, 785
 feed preparation, 996
 feed restriction, 344
 feed trained, 1602
 feed utilization, 45, 1414
 feeding, 94, 292, 1167, 1285
 feeding behaviour, 868, 1509
 feeding efficiency, 1226
 feeding frequency, 370, 1429
 feeding level, 163, 906
 feeding performance, 1588
 feeding rate, 1429

- feeding strategy, 1429
Fenneropenaeus chinensis (Osbeck), 674
fertility, 1555
fertilization, 292, 1422
fertilized ponds, 1535
fertilizer, 785
fertilizing ability, 841
filamentous fungi, 1581
filial cannibalism, 513
fillet, 1197
filtrate, 1500
first feeding, 1226, 1588
fish, 1252, 1619
fish meal, 180, 378, 439
fish meal replacement, 445, 1322
fish pond, 8, 983
Flavobacterium columnare, 813
flesh colour, 519
food availability, 94
food consumption, 137, 1085
food conversion, 1429
food intake, 361, 1304
food web, 317
formulated diets, 746
freezing rate, 1465
fresh chicken manure, 570
freshwater, 361
freshwater bathing, 398
freshwater prawn, 210, 255, 264, 278, 300
future, 210

gel filtration chromatography, 336
gelatin diet, 1304
genetic correlations, 1129
genetic covariation, 1129
genetic distance, 829
genetic diversity, 69
genetic map, 643
genetic protection, 1145
genetic variation, 564, 1450
genetics, 120, 712, 1509
giant freshwater prawn, 284
gill histopathology, 1177
gill-associated virus, 1369
gills, 776
gilthead seabream, 733
GIS, 946
global, 210
glucose, 172
 α glucosidase, 1252
gonad development, 554
gonadosomatic index, 882
gonads, 41, 972, 1356
'green water', 1581
greenwater culture, 1588
grouper, 114
growth, 1, 45, 94, 120, 163, 180, 238, 472, 479, 486, 505, 530, 537, 546, 600, 610, 635, 712, 739, 753, 857, 906, 996, 1026, 1049, 1085, 1207, 1304, 1337, 1391, 1414, 1429, 1544
growth efficiency, 868
growth phase, 1500
growth rate, 79
growth traits, 621, 1129
growth variation, 238
growth-molluscs, 1400

guppy, 996
gut microflora, 1619

haemagglutination, 1369
haematology, 144, 898, 1185
haemocyte separation, 352
haemocytes, 962
haemolysin gene, 920
halibut, 370
Haliotis laevis, 654, 1400
Haliotis rubra, 654, 1400
handling, 33, 172
handling stress, 1056
hatch success, 1298
hatching, 876, 1422
heat shock, 525
Heterololigo bleekeri, 409
heterosis, 1207
heterozygosity, 829
high throughput, 516
histology, 41
hormonal induction, 1473
HSP70, 525
HUFA, 1216
hybrid catfish, 479
hybridization, 120, 1356
hybrids, 1049

identification, 733, 920
immune cells, 352
immune response, 912, 1105
immuno-radio microbial receptor assay (Charm II test), 570
inbreeding, 69
incubation, 876
India, 255, 311
individual housing, 868, 1509
individual variation, 1509
individual-based tilapia farming simulation model, 455
induced spawning, 654
ingestion rate, 130, 768
inherent variation, 868
inland saline aquaculture, 1345
integration, 1535
intensive culture, 163
interaction, 1563
internal reference, 712
intoxications, 22
ionic manipulation, 1149

Japanese flounder, 920, 1105
juvenile, 41, 94
juvenile behaviour, 513
juvenile growth, 493
juvenile production, 114, 1595

kidney, 936
kuruma shrimp, 739, 1563

L - ascorbyl - 2 - monophosphate -Na/Ca (AMP-Na/Ca), 739
Labeo rohita, 635, 803
Labeo species, 564
lactate, 172
lactic acid bacterium, 758
larvae, 278, 927, 1167, 1265, 1356
larval development, 1113

- larval diets, 1595
 larval DNA extraction, 516
 larval quality, 890
 larval rearing, 1313
 larval survival, 1113
 latency period, 1273
Laternula marilina, 130, 768
 life cycle, 413
 light intensity, 1588
 lingcod, 1298
 lion's paw scallop, 505
 lipid level, 1602
 lipid peroxidation, 431
 lipids, 52, 486, 493, 1488
Listonella anguillarum, 920
Litopenaeus, 912
Litopenaeus stylirostris, 1075
Litopenaeus vannamei, 439, 834, 1075
 live shipment, 300
 live transportation, 300
 liver, 936
 liver enzymes, 33
Liza haematocheila, 906
Loligo vulgaris, 876
 luminous vibriosis, 1581
Lutjanidae, 52
Lysmata seticaudata (trisso), 493
 lysozyme, 391
- Macrobrachium*, 210, 264, 300
Macrobrachium culture, 255
Macrobrachium rosenbergii, 231, 238, 311
 mahseer, 422, 1465
 male, 1216
 mariculture, 1069
 marine fish larvae, 114
Marsupenaeus japonicus, 1563
 mass selection, 69
 maternal effects, 621
 maturation, 666
 meat and bone meal, 439
 meat and poultry meals, 378
 Mediterranean Sea, 610
 megalop, 927
 melanin, 1517
 meristics, 1265
 metabolic rate, 1384
 metabolism, 768
 metamorphosis, 1313, 1595
 methaemoglobinaemia, 1177
 Mexico, 505
 microalgae, 1500, 1611
 microbial phytase, 180, 326, 803
 microsatellite, 69, 1356, 1450
 microworm, 196
 milt production, 1473
 milt quality, 682
 mineral, 479
 mineral absorption, 326
 mineralization, 983
Mithraculus forceps, 1313
 mitosis, 962
 mitotic index, 674
 mixed feeding schedule, 627
 modelling, 983
- mola, 317
 mollusc hatchery, 1611
 mollusca, 1093
 monaco shrimp, 493
 monoclonal antibody, 1279
 monosex culture, 231
 morphology, 1265
 mortality, 311, 1391
 moulting, 79, 137
 mud crab, 1113
 multiple spawning, 890
 multiplex, 516
 multivariate analysis, 100
 murray cod, 472
 muscle opacity, 311
 muscle proteins, 336
Mycteroperca rosacea, 114
Mytilus edulis, 962
- Na⁺, K⁺-ATPase, 615
 NaHCO₃, 933
Neomysis japonica, 409
Neoparamoeba pemaquidensis, 398
 NH₃-excretion rate, 768
 Nile tilapia, 69, 100, 163, 1049, 1414
 Nile tilapia (*Oreochromis niloticus*), 570
 nitrite, 79
 nitrogen budget, 8, 61
 nitrogen excretion, 834
 nitrogen flux, 8, 983
 nitrogen retention, 704
Nodipecten subnodosus, 505
 non-additive genetic effects, 621
 non-lethal, 851
 non-linear regression, 519
 non-starch polysaccharides, 1157
 nucleotide, 1121
 nutrient budget, 1322
 nutrient digestibility, 180
 nutrient requirement, 1285
 nutrition, 586, 1121, 1285, 1322
 nutritive value, 1500
- O₂-consumption rate, 768
Oncorhynchus mykiss, 704
 ontogeny, 1265
Ophiodon elongatus, 1298
Oreochromis, 712
Oreochromis niloticus, 746, 1450, 1535
Oreochromis niloticus niloticus, 455
Oreochromis niloticus × *O. aureus*, 1408
 organic matter accumulation, 983
Orithya sinica, 79
 osmoregulation, 819
Otaria flavescens, 1062
 ovarian histology, 666
 over-wintering, 137
 Ovopel, 1015
 oxygen, 1400
 oysters, 516, 530, 753, 1337
- P. monodon*, 1149
Pacifastacus leniusculus (Dana), 857
 Pacific bluefin tuna, 413
 Pacific white shrimp, 819

- paddlefish, 1602
Pagrus auratus, 378
Pangasius pangasius, 180, 326
Paracentrotus lividus, 972
Parachanna obscura, 455
Paralabrax maculatofasciatus, 1226
parental assignment, 516
PCR, 920
pearl oysters, 150
Pejerrey, 1473
Pelodiscus sinensis, 61
pen culture, 284
Penaeus, 586, 1369
Penaeus japonicus, 202
Penaeus monodon, 405, 666, 1216, 1581
Penaeus semisulcatus, 137
Percoll gradient, 352
performance, 1049, 1207
peroxidase, 1293
phagocyte activity, 16
pharmacokinetics, 1526
phenoloxidase, 1293
phosphatidylcholine, 1563
phosphatidylinositol, 1488
phosphorus fertilization, 593
photoperiod, 1, 882
phylogenetic relationship, 564
Piaractus mesopotamicus, 546
pigmentation, 519
pikeperch, 16, 486, 1458
Pinctada maxima, 150
PIT, 730
plankton, 196
plant protein, 180
plasma metabolites, 33
Poecilia reticulata, 996
Poeciliidae, 513
polka dot grouper, 1285
polychaete infestation, 721
polychaetes, 1216, 1619
polyculture, 317, 1075
polymorphism, 829
pond aquaculture, 1333
pond seepage, 1322
postlarvae (PL), 311, 405, 739, 890
post-settled juvenile, 600
potassium, 1149
poultry manure, 785
prawn farming, 284
precocious sex maturation, 1129
predation, 799
preservation, 422
prey density, 1226, 1313
probiotics, 1619
processing, 344
production, 292, 344, 1414
productive traits, 188
profitability, 1037
proliferative response of lymphocytes, 16
prophenoloxidase, 352
protection devices, 1062
protein, 52, 803, 972, 1384
protein content, 936
protein conversion efficiency, 52
protein level, 163, 546, 1602
protein to energy, 1285
proteinaemia, 22
proximate composition, 1414
Pseudomonas, 758
pumping cost, 725
punti, 317
qualitative changes in erythrocytes, 1177
quality, 1197
raceway culture, 22
radiography, 1304
rainbow trout, 431, 704, 933, 1230, 1526
RAPD, 564
recovery, 578, 962
recreational fishery enhancement, 1345
red, 1049
red drum, 1121, 1572
red porgy, 1517
red snapper, 52
reference values, 22
relative percent survival, 1105
release, 799
release site, 1374
rendered animal meals, 1322
repeatability, 1509
reproduction, 1458
reproductive cycle, 554
reproductive performance, 1216
residual feed intake, 704, 1509
resistance, 1391
respirometry, 1230
restocking, 799
retention efficiency, 906
rhythms, 1185
rice–prawn culture, 292
rigor, 1197
rohu, 317
saline groundwater, 1149
salinity, 130, 391, 712, 819, 876, 890, 936, 1293, 1298
salmon, 1555
salmon farms, 1062
salmonidae, 120, 1026
salmonids, 851
Sander lucioperca, 1167, 1458
scallop, 643
Sciaenops ocellatus, 1572
Scylla serrata, 927, 1113
sea bream, 172
sea cucumber (*Apostichopus japonicus*), 1085
sea urchin, 600, 730, 972
seabass, 41
seasonal changes, 696
seawater irrigation system, 725
seawater tolerance, 615
seaweed, 1069
Sebastes schlegeli, 898
sediment, 1374
seed production, 920
seedling production, 413
selective breeding, 753, 1145
semen quality, 1422
semi-intensive, 746
sephadex, 912

- seston, 1337
 settling tank, 578
 sex reversal, 231
 sex-reversed tilapia, 45
 sexual maturation, 882
 SGRHa, 1273
 SGR, 370
 Shishamo smelt, 615
 shrimp, 439, 1145, 1293
 shrimp culture, 725
 shrimp farming sustainability, 255
 shrimp feeding, 1075
 signal crayfish, 1304
Silurus meridionalis Chen, 1384
 silver carp (*Hypophthalmichthys molitrix*), 627
 silver perch, 1322, 1429
 site selection, 946
 size at hatching, 1134
 size grading, 857
 skin, 813
 slaughtering value, 1207
 snapper, 378
 social behaviour, 238
 social control of growth, 238
 South American sea lion, 1062
 Southern Chile, 721
 soybean meal, 1322
Sparus aurata, 172, 1243
Sparus auratus L., 733
 spawning, 666
 species ratio, 1037
 specific antibodies, 813
 specific dynamic action, 1384
 specific growth rate, 196
 sperm, 1216, 1480
 sperm concentration, 86
 sperm density, 682
 sperm morphology, 682
 sperm motility, 841
 spermatozoa, 422, 1465
 spinal deformities, 758
Spirinchus lanceolatus (Hikita), 615
 Spirulina, 188
 sportfish ponds, 593
 squash, 41
 squid, 409
Staphylococcus, 311
 starch, 1408
 status, 210
 stimulation of ovulation, 1015
 stocking density, 405, 857, 1313
 stocking efficiency, 1037
 stomach capacity, 851
 stomach water content, 851
 stonessucker, 196
 storage, 1555
 strain, 712
 stress, 172, 824, 1197, 1442
 stress biomarkers, 1293
 stress resistance, 739
 stress responses, 898
 stress test, 890
 stripping response, 1273
Strongylocentrotus droebachiensis, 600
 sturgeon, 188
 substrate, 635
 supersaturation, 1400
 survival, 120, 505, 537, 857, 1544
 survival rate, 79
 survivorship, 600
 suspended sediments, 391
 sutchi catfish (*Pangasius hypophthalmus*), 627
Synodontis, 829
 tagging, 730
 tank colour, 278, 1226
 tank design, 513
 tannic acid, 1458
 telemetry, 1230
 temperate culture, 264
 temperature, 137, 600, 1197, 1252, 1298, 1313, 1400
 tench, 1185
 Tenerife, 946
 tetraploid, 86
Thunnus orientalis, 413
Thunnus thynnus, 610
 tidal height, 1093
 tilapia, 113, 391, 936, 1157, 1408
 top-crossing, 1207
Tor khudree, 422
Tor, mahseer, pond-reared, broodstock, spawning, conservation, 1001
 total haemocyte count, 674
 transportation, 1230
 treatment, 776
 tricaine, 933
 Trichlorfon, 144
 triploid, 202, 530
 triploidy, 1026
 tropics, 1037
 trout, 1555
 ultrafiltration, 336
Umbrina cirrosa, 1265
 upright posture, 799
 utilization, 1408
 vegetative propagation, 1069
Vibrio, 912, 1611
Vibrio anguillarum, 1105
 VIE tag, 733
 Vietnam, yield, 1037
 Vietnamese imports, 1279
 viscosity, 1157
 visible implant elastomer tagging system, 733
 vitamin B₆, 431
 vitamins, 746
 von Bertalanffy growth curve, 100
 water chemistry, 398
 water hardness, 398
 water management, 725
 water quality, 546, 593, 635, 785, 1157
 water requirement, 725
 water temperature, 391, 696, 1085
 Western Australia, 150
 white muscle disease (WMD), 311
 White Nile, 829
 white sturgeon, 824
 white sturgeon iridovirus, 824

- wild, 1488
- winter flounder, 1374, 1595
- working fecundity, 1273
- Wova-FH, 941
- WSSV, 674
- Xiphophorus helleri*, 513
- X-ray, 851
- xylanase, 586
- yeasts, 758, 1581
- yellowhead virus, 1369
- yellowtail (*Seriola quinqueradiata*), 696
- yolk sac conversion efficiencies, 1134
- zero water exchange system, 834
- zoea, 927
- zymosan A, 674

